

**Product Texts**

NORYL™ N850 resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This high flow, injection moldable grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of 5VA at 3mm and V0 at 1.5mm along with UL746C Outdoor Suitability rating of F2. NORYL N850 resin exhibits high impact strength, dimensional stability, hydrolytic stability, and very low moisture absorption. This material is an excellent candidate for electrical and business equipment applications.

<b>Processing/Physical Characteristics</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ASTM Data</b>			
Melt Flow Index, MFI	<b>18</b>	g/10min	ASTM D 1238
Temperature	<b>260</b>	°C	-
Load	<b>3.8</b>	kg	-

<b>Mechanical properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Tensile Modulus	<b>2950</b>	MPa	ISO 527
Yield stress	<b>66</b>	MPa	ISO 527
Yield strain	<b>3.2</b>	%	ISO 527
Stress at break	<b>61</b>	MPa	ISO 527
Strain at break	<b>4.5</b>	%	ISO 527
Flexural modulus	<b>2600</b>	MPa	ISO 178
Izod notched impact strength, +23°C, 4mm	<b>10</b>	kJ/m <sup>2</sup>	ISO 180/1A

<b>ASTM Data</b>			
Tensile Modulus	<b>2620</b>	MPa	ASTM D 638
Tensile Strength at Yield	<b>62</b>	MPa	ASTM D 638
Tensile Strength at Break	<b>48</b>	MPa	ASTM D 638
Elongation at Yield	<b>3.6</b>	%	ASTM D 638
Elongation at Break	<b>18</b>	%	ASTM D 638
Flexural Modulus	<b>2410</b>	MPa	ASTM D 790
Izod Impact notched, 1/8 in	<b>213</b>	J/m	ASTM D 256

<b>Thermal properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	<b>82</b>	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	<b>95</b>	°C	ISO 75-1/-2
Vicat softening temperature, 120°C/h 50N	<b>108</b>	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	<b>V-0</b>	class	IEC 60695-11-10
Thickness tested	<b>1.5</b>	mm	-
Burning behav. at thickness h	<b>HB</b>	class	IEC 60695-11-10
Thickness tested	<b>1.0</b>	mm	-
Burning behav. 5V at thickness h	<b>5VA</b>	class	IEC 60695-11-20
Thickness tested	<b>3.0</b>	mm	-
<b>ASTM Data</b>			
DTUL @ 66 psi	<b>93</b>	°C	ASTM D 648
DTUL @ 264 psi	<b>82</b>	°C	ASTM D 648
Vicat Temperature	<b>101</b>	°C	ASTM D 1525

<b>Other properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Density	<b>1130</b>	kg/m <sup>3</sup>	ASTM D 792

<b>Processing Recommendation Injection Molding</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Pre-drying - Temperature	<b>75 - 80</b>	°C	-
Pre-drying - Time	<b>3 - 4</b>	h	-
Processing humidity	<b>≤0.02</b>	%	-
Melt temperature	<b>250 - 275</b>	°C	-
Mold temperature	<b>55 - 75</b>	°C	-
Zone 1	<b>215 - 265</b>	°C	-
Zone 2	<b>225 - 270</b>	°C	-
Zone 3	<b>240 - 275</b>	°C	-

**NORYL™ Resin N850 - Americas**

(PPE+PS)

Saudi Basic Industries Corporation (SABIC)

Screw speed	<b>20 - 100</b>	rpm	-
Back pressure	<b>0.3 - 0.7</b>	MPa	-

**Characteristics****Processing**

Injection Molding

**Chemical Resistance**

Hydrolytically Stable

**Additives**

Flame retarding agent

**Regional Availability**

North America

**Special Characteristics**

Flame retardant